

STRONG
FITNESS MAGAZINE

TRAINING GUIDE

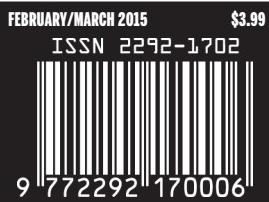
FINALLY!

UNCOVER YOUR ABS

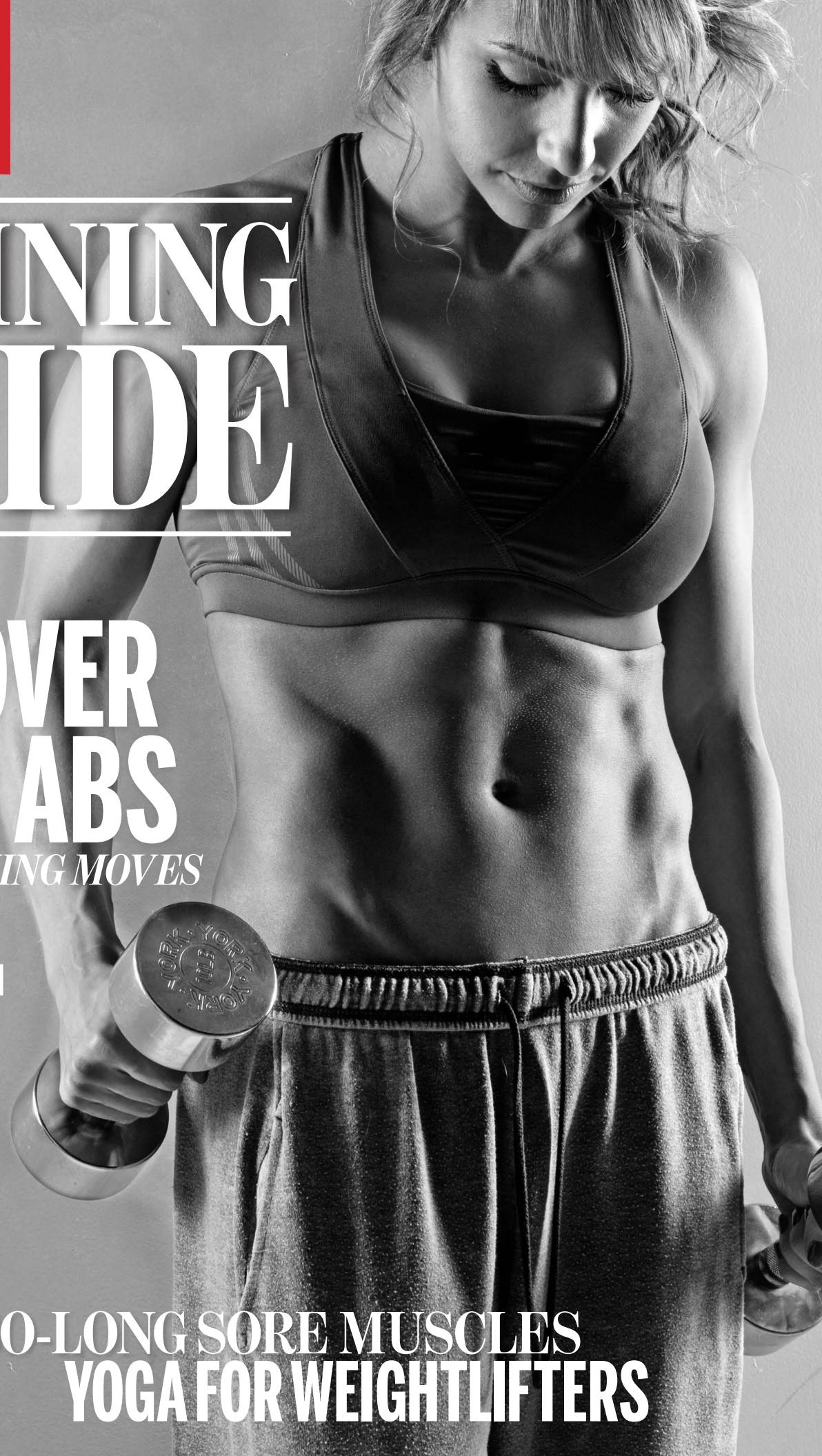
5 CORE-CARVING MOVES

GET FIT FROM
HEAD-TO-TOE WITH
**BATTLE
ROPES**

+ GET THE
FACTS ABOUT
GMOs



**SO-LONG SORE MUSCLES
YOGA FOR WEIGHTLIFTERS**



BCAAs – BACKED BY SCIENCE, & HIGHLY EFFECTIVE & DELICIOUS!

“Are BCAAs the Best Supplement you can take?”

INTELLIGENT DIETING SUPPORT

Caloric restriction, limiting carbs, increased cardio intensity; all essential for effective dieting, and all rapid ways to breakdown and flush away muscle. The muscle tissue breakdown that takes place when you're dieting reduces your metabolism and your ability to burn calories. Taking AMINOCORE feeds your muscles directly even while dieting and dramatically limits muscle deterioration. The net effect; you retain muscle, melt fat and maintain a higher metabolism. AMINOCORE the dieting secret you've been looking for.

THE BEST MIXABILITY, DELIVERY & ABSORPTION

AMINOCORE has Myotrisol™; a cutting-edge solubility technology to BCAA dosage administration. Until now, delivery of a 100% pure 45:30:25 ratio BCAA powder in a potent research directed level (8,180 mg), ideal for ANABOLIC activity, was next to impossible. Aside from being the purest Pharmaceutical-Grade BCAAs, our Myotrisol™ process FLASH-FREEZE-DRIES our 45:30:25 BCAA powder to create a truly soluble and easily-mixed BCAA drink that absorbs in a truly liquid form.

IS ORAL SUPPLEMENTATION EFFECTIVE?

The first question any skeptical supplement buyer should always ask is, "That's great in a lab, but if I take it, will it work?" The answer is definitively, yes! Oral liquid supplementation of 8.18 g of 45:30:25 ratio BCAAs boosted BCAA concentration in the blood and in muscle cells and activated the mTor-p70^{S6K} classic anabolic signal. This confirms that drinking your BCAAs (as in AMINOCORE) in a soluble liquid form replicates the research! You can literally implement this groundbreaking technology TODAY!

ALL BCAAs ARE NOT CREATED EQUAL!

When you're comparing one BCAA to the other, look closely at the formula – does it include glutamine passed off as real BCAAs? In contrast, the AMINOCORE label shows you precise BCAA amounts. Glutamine has its place, but it is not a Branched Chain Amino Acid (BCAA). AMINOCORE includes 8,180 mg of real BCAAs not glutamine. AMINOCORE is 100% PURE, FERMENTATION-DERIVED, PHARMACEUTICAL-GRADE, 45:30:25 ratio BCAAs. With added Ketoisocaproic

acid (KIC) to further enhance the buffering of lactic acid (muscle toxin) and increase the levels of L-Leucine at the site of muscle. AMINOCORE contains additional highly bioavailable B-Vitamins not only enhance the anabolic environment, they help to release additional metabolic energy.

THE BOTTOM LINE!

BCAAs (Branched Chain Amino Acids - Leucine, Valine and Isoleucine) are one of the most effective supplements you can buy. BCAAs improve and maintain your muscle tone like nothing else. Having more muscle than fat creates the most ideal physical shape. A greater degree of Lean Body Mass (LBM) elevates your metabolism and in doing so can increase the rate at which you burn through calories. Finally, a truly effective BCAA supplement that mixes perfectly and tastes exceptionally good.



INDEPENDENT 3RD PARTY TESTED
TESTED FREE FROM
BANNED SUBSTANCES

AMINOCORE comes in 4 Flavors & Unflavored!

Available in two sizes:

44 servings and 111 servings.
Take 1 scoop with cold water
every workout.



*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

2X
ARNOLD CLASSIC
FIGURE
CHAMPION



CHOICE OF
CHAMPIONS

TEAM ALLMAX
CANDICE KEENE
10X IFBB CHAMPION

- 8,180 mg of 45:30:25 PURE INSTANT BCAAs
- FORTIFIED WITH FATIGUE-FIGHTING Alpha K.I.C.
- LOADED WITH 7 FORMS OF VITAMINS B3, B6, B9 & B12!

0g
Sugar

8g
BCAAs

0g
Carbs





in every issue

EDITOR'S NOTE | 4

Our Editor-in-Chief stresses the importance of keeping things fresh.

CONTRIBUTORS | 3

Meet the masterminds behind each word and workout.

PURE ADRENALINE | 6

Moments of strength to get you all fired up.

TRAINER TALK | 8

Want more muscle? Mix up your rep ranges to recruit more muscle fibers. Our expert columnist tells you how.

INJURY REPORT | 28

The doctor is in. Sports Chiropractor James Ho lists the top four weight room mistakes that lead to injuries.

TRAINING

AGAINST THE ROPES | 10

If you've hit a plateau with your training, it's time to learn the ropes. Whip your bod into unbelievable shape with a workout that blasts fat, builds muscle, and gets your heart pumping.

UNCOVER YOUR ABS | 16

Think you're destined for a soft, undefined midsection? Think again. These five expert-approved exercises will take your core to another level. Next stop: six-pack city.

LIFT & LENGTHEN | 24

Say so-long to soreness with basic yoga positions that target weightlifters' tightest muscles. These are doable for all levels, even if you've never heard the word "asanas".

NUTRITION

GMOs EXPOSED | 22

What the heck are GMOs? Chances are, you've eaten a ton of them today and didn't even know it. Get the facts about what's going on with our food supply.

ON THE COVER

COVER MODEL
RACHEL
DAVIS-HAMILTON

PHOTOGRAPHY
PAUL BUCETA

SHOT AT
STRONG
HEADQUARTERS





LINDSAY PHOTO R.G. PHOTOGRAPHY

DR. HO PHOTO ANDREW BADDER

DAVE LAUS PHOTO LORI FABRIZIO

SANDY BRAZ PHOTO PAUL BUCETA

NICHELLE LAUS PHOTO DAVE LAUS

SANDY BRAZ, STRONG DEPUTY EDITOR

"Lift & Lengthen," pg 24

Since 1999, Sandy has worked in the fitness industry in various roles, from a certified yoga instructor and personal trainer to writing for major fitness publications and running her own mobile wellness studio, where she programmed yoga and fitness courses for clients and corporations. For this issue, she pulled together a few simple but effective yoga poses to help with the muscle tightness that most weightlifters deal with, particularly in the back and hips. "These are two areas of the body that are used—and overused—in weightlifting a lot," says Sandy, "and we often don't take the time to care for them, even though they're essential to lifting. These poses target those areas specifically, with the idea that stretching them can strengthen them as well."



LINDSAY KENT, CERTIFIED PERSONAL TRAINER

"Trainer Talk," pg 8

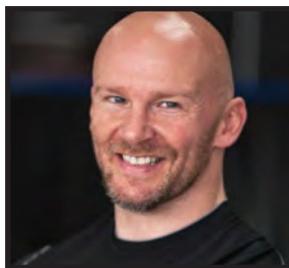
Lindsay is a Master Trainer with the ISSA and is the owner of her own personal training business, Equilibrium Bodylab. She's also a professor for the ISSA's College of Exercise Science, and former AAU Junior Olympic volleyball captain, as well as a regular article contributor for fitness publications and websites.



NICHELLE LAUS, CPT & COACH

"Get Even," pg 18

This mother of four young boys uses fitness as her outlet to inspire other women and mothers to live healthy lives. She is a figure and bikini competitor, motivational speaker, kickboxing instructor and fitness model.



ROB KING, CPT, FOUNDER AND CEO OF HEAVYWEIGHTS FITNESS

"Against the Ropes," pg 10

As the 2014 National Powerlifting Champion and a black belt in martial arts, Rob King knows his strength techniques. He's been an expert and contributor in numerous fitness publications as well as a gym owner with a large clientele of women looking to transform their bodies and get on the stage.



DR. JAMES HO, DC, BHSC

"Injury Report," pg 28

A member of STRONG Fitness Magazine's Advisory Board, James is our go-to expert when it comes to sports medicine and chiropractic concerns. He's a chiropractor at the Athlete's Care Sports Medicine Centres in Toronto and has consulted athletes at the pro level from the NHL to UFC, as well as recreational athletes and Olympians.



DAVE LAUS, PHOTOGRAPHER

"Get Even," pg 18

Photographer Dave Laus has been shooting women's fitness for just two years, but he's already proving to be a favorite shooter among models and athletes in the industry. For this issue, he shot the unilateral training routine found on page 18 and the stunning image in Pure Adrenaline on page 6.



MOTIVATION REVIVAL

NOW THAT WE'RE WELL INTO 2015 and the thrill of the New Year has faded into a distant, champagne-clouded memory, it's the time of year when motivation starts to run a little dry. Maybe your workout routine has become stale, or you've stopped seeing results, or the cold weather has had you more inclined to hit the couch than the gym. Whatever the reason, if you've lost a bit of the momentum you had two months ago, you've come to the right place.

This issue of our digital Training Guide contains challenging workouts to get you out of your housecoat and psyched about your goals again. As usual, we've collected effective, science-backed training techniques and information from some of the best coaches and trainers we could find. We asked for high-intensity workouts and advanced muscle-building techniques, and they delivered.

If you have hit a plateau with your weight loss or muscle gains, or the thought of doing your same old routine again bores you to tears, then the battle ropes workout on page 10 is exactly what you need to shake things up. Written by award-winning trainer and women's powerlifting coach Rob King, this routine is a force to be reckoned with when it comes to improving your fitness. It's common knowledge that battle rope training strengthens your cardiovascular system (if you've ever trained with these bad boys, you know what I'm talking about), but what many people don't know is that all that slamming and battling also gives your core, back, arms, shoulders and glutes a run for their money, meaning you'll burn fat and calories while building muscle.

If you're a little more old school, the unilateral upper body routine on page 18 may be more your style. Created by fitness expert, Nichelle Laus, this workout is designed to target your weaknesses by working one side of the body at a time, effectively correcting and strengthening muscle imbalances. The pay off? Reduced risk of injury, but also greater overall strength and a beautifully symmetrical physique. I'm pretty sure those things were on your list of resolutions, no?

And for those of you who vowed to finally have a six-pack this year, drop everything and flip to page 16 for five moves that will help get you there. We asked two training experts for their all-time favorite exercises for building visible abs and these babies made their short lists. And hey, if the exercises don't motivate you, then the photo of cover athlete Rachel Davis's incredible midsection will.

It really doesn't matter what jumpstarts your motivation back into high gear, as long as you don't give up on your goals. So kick off your slippers, slam a pre-workout and get your butt back in the game.

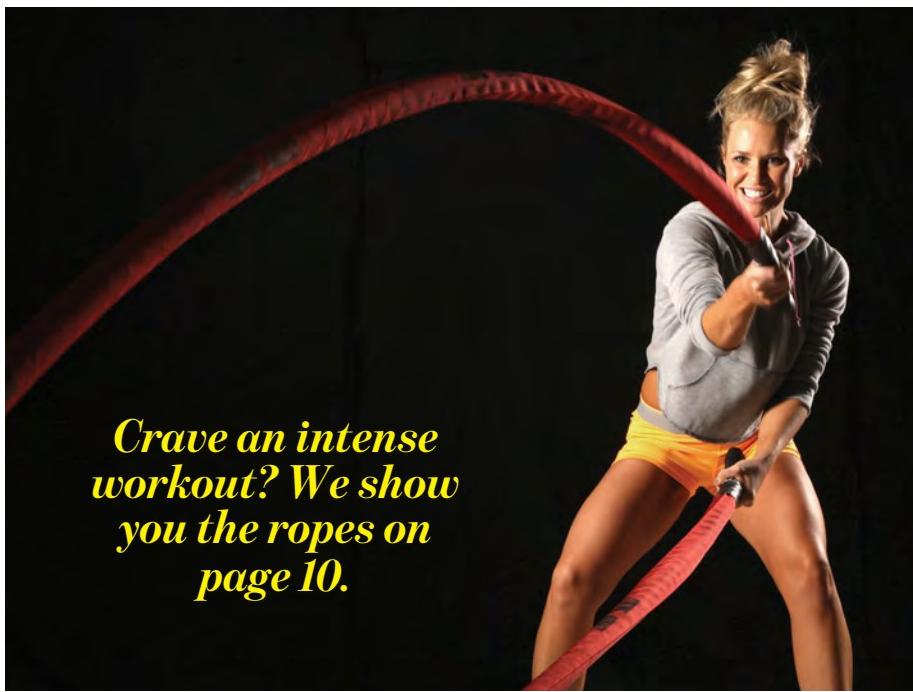
STAY STRONG,
KIRSTYN BROWN
EDITOR-IN-CHIEF



LEFT: FITNESS MODEL
MEAGHAN TERZIS.

TOP: COVER ATHLETE
RACHEL GETS HER
SHINE ON; SANDY
MAKES ADJUSTMENTS
TO MEAGHAN'S
DOWNWARD DOG.

BOTTOM: TIFFANI
LEE CHASE ON SET
SHOOTING "AGAINST
THE ROPES".



**Crave an intense
workout? We show
you the ropes on
page 10.**

Always consult your physician before beginning any exercise program. This general information is not intended to diagnose any medical condition or to replace your healthcare professional. Consult with your healthcare professional to design an appropriate exercise prescription. If you experience any pain or difficulty with these exercises, stop and consult your healthcare provider. If you experience any symptoms of weakness, unsteadiness, light-headedness or dizziness, chest pain or pressure, nausea, or shortness of breath. Mild soreness after exercise may be experienced after beginning a new exercise. Contact your physician if the soreness does not improve after 2-3 days.

STRONG

FITNESS MAGAZINE

PRESIDENT
Kim Günther

EDITOR-IN-CHIEF
Kirstyn Brown

PUBLISHER
Kevin Detto

CREATIVE DIRECTOR
Erin Lutz

CHIEF PHOTOGRAPHER
Paul Buceta

DEPUTY EDITOR
Sandy Braz

SENIOR DESIGNER
Jacqueline Hornya

DESIGNER
Andreia Pereira

COPY EDITOR
Chelsea Clarke

PHOTOGRAPHY COORDINATOR
Annette Milbers

ADVERTISING SALES
Kevin Detto
kdetto@strongfitnessmag.com
416-804-3616

DIRECTOR OF SPECIAL EVENTS
Tina Tyler
ttyler@strongfitnessmag.com

LEGAL COUNSEL
Scot Patriquin
Brauti Thorning Zibarras LLP

CONTRIBUTORS
*Sandy Braz, James Ho, Lindsay Kent, Rob King,
Dave Laus, Nichelle Laus.*

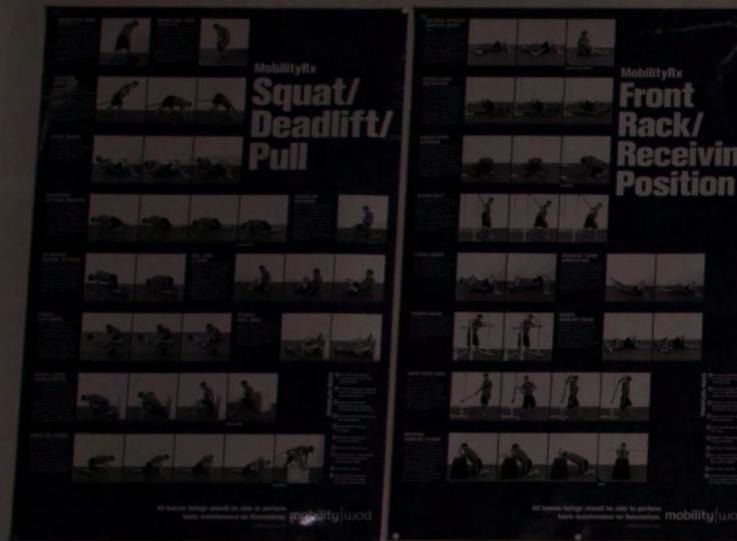
SPECIAL THANKS
LA Fitness Mississauga, Two Chicks & Some Lipstick.

DISTRIBUTION
Disticor Magazine Distribution Services
Office 905-619-6565

PRINTING
RR Donnelley
Mark de Groot
Office 905-362-3245

pure ADRENALINE

PHOTOGRAPHY BY DAVE LAUS



"To have any doubt in your body is the biggest weakness an athlete can have."

-SHAWN JOHNSON

MODEL ANDI SADOWSKI
SHOT ON LOCATION AT FULL METAL CROSSFIT, MISSISSAUGA, ON



COACH LINDSAY

WRITTEN BY LINDSAY KENT, ISSA PROFESSOR,
MASTER TRAINER AND OWNER OF EQUILIBRIUM BODYLAB

Rethink Your Reps

Muscle building depends on more than the 8-10 rep range. If you really want to see results, variety is where it's at.

I DON'T NEED TO TELL YOU that when it comes to hitting your fitness goals, your success hinges on having a solid plan of action. Without consistency, you won't get the results you're after. But far too often, I see women get tunnel vision with their programs, sticking to one concept rather than applying an individualized approach to their training. For instance, defaulting to the 8-10 rep range with every set of every exercise because they're convinced it's the only way to achieve muscle hypertrophy.

The fact of the matter is, your rep range, rest time and load need to vary in order to hit and activate more muscle fibers and in turn, achieve the sculpted physique you're working so hard to build. Here's what you need to know in order to create a training approach that is "just right" for you.



IS YOUR TRAINING
PROGRAM MISSING
SOMETHING?

SEQUENTIAL RECRUITMENT

Your body contains slow, intermediate, and fast twitch muscle fibers, each of which behave differently during your workout. Slow fibers recover quickly and engage during endurance activities (think marathons), fast twitch are the most powerful, achieving all-out exertion efforts (think sprint training), and intermediate fibers, a combo of fast- and slow-twitch fibers, are powerful but do not have the endurance of the slower muscle fibers.

Why am I telling you this? Because in order to achieve muscle growth, you need to activate the full spectrum of these fibers in your body by engaging in different rep ranges, as well as rest periods and load with each set. The idea is to target all three types of muscle fibers

sequentially so they each get a good workout. Here's how:

THE GOLDILOCKS PRINCIPLE

The "Goldilocks Load" refers to a rep range and time under tension that is, like that fabled porridge, not too hot, not too cold, but just right. This method of training requires you to produce effort quickly enough so as not to give the fast, most powerful muscle fibers the bulk of the work, but not so slow that the intermediate and slow twitch fibers have sufficient time to recover and shift the effort back to the fast twitch. It may sound confusing at first, but don't worry, your program won't be a cluttered mess of principles, but rather a planned progression of exercises and rep ranges that effectively stimulate lean muscle growth.

THE PROGRAM

This program will follow a template of progression that looks like this: Heavy Compound Movement, Intermediate Compound Movement, and High-Rep Isolation.

These principles will allow you to construct a workout that capitalizes on the full spectrum of muscle recruitment by incorporating compound and isolation exercises, multiple repetition ranges and fatigue during isolation exercises.

The Heavy Compound will tackle the fast twitch (high threshold) fibers and require a rep range of 1-6.

The Intermediate Compound Movement will use an 8-10 rep range and focus on muscle activation and form.

The High-Rep Isolation will focus on a 12-20 rep range, allowing for a longer time under tension, but will fatigue the muscle.

Yours in Fitness,

Lindsay

EXERCISE	REPS	SETS	REST
A. Barbell Row	4-5	4	3 min
B. Pull-Up	8	4	90 sec
C1. Standing Unilateral Cable Row	12-15	5	No Rest
C2. One Arm Kettlebell Row	15-20	5	60 sec
D. Preacher Curl	15-20	4	30 sec

ALL HER EFFORTS ARE

NATURAL

SO ARE OURS.



**MINIMAL INGREDIENTS.
GLUTEN FREE. GREAT TASTE.**

ORDER A TRIAL PACK TODAY! USE PROMO CODE **STRONG** FOR 25% OFF
AT TRYABOUTTIME.COM. FOLLOW US @TRYABOUTTIME ON



Challenge
yourself with
the workout that
delivers cardio,
conditioning,
coordination
and strength.
What barbell
can do that?



AGAINST THE ROPES

WRITTEN BY ROB KING, CPT, FOUNDER & CEO OF HEAVYWEIGHTS FITNESS
PHOTOGRAPHY BY PAUL BUCETA

**IF YOU WANT TO GET
WHIPPED INTO SHAPE,
LOOK NO FURTHER
THAN A SET OF ROPES.**

These bad boys improve your fitness game in every way, from strengthening your core to absolutely slaying calories, and as for cardio, think of battle ropes training as a sprint workout for your upper body.

The concept of using ropes as fitness equipment was pioneered by John Brookfield, the strongman known for ripping 60 decks of cards in half in 60 seconds, and who brought rope training to the masses. He discovered that by maneuvering the ropes in a variety of both linear and circular motions, it created a peak heart rate in the athlete. Today, battle ropes are commonly used for high intensity interval training to develop power and explosiveness, as well as anaerobic and aerobic endurance. ▶

THIS ROUTINE USES FOUR STYLES:

A1. ROPE SLAMS

Simultaneously raise and lower the ropes as hard and quickly as you can.

A2. BATTLE ROPES

Alternate left and right slams, raising one as the other lowers.

A3. OUTSIDE CIRCLES

Simultaneously move the ropes in large circular motions away from each other.

A4. INSIDE CIRCLES

Simultaneously move the ropes in large circular motions towards each other.

HOW TO:

For each round, perform exercises A1-A4 one after the other, following the instructed work to rest ratio. Rest 30 seconds between rounds.





ROUND 1

WARM UP

15 Seconds Work/
30 Seconds Rest
Between Exercises

ROUND 2

20 Seconds Work/
25 Seconds Rest
Between Exercises

ROUND 3

25 Seconds Work/
20 Seconds Rest
Between Exercises

ROUND 4

20 Seconds Work/
10 Seconds Rest
Between Exercises

ROUND 5

BURNOUT

15 Seconds Work/
No Rest Between
Exercises

ROUND 6

COOL DOWN

15 Seconds Work/
30 Seconds Rest
Between Exercises ▶

Play with the resistance:
Stand closer to the anchor
for a tougher workout.

GET ROPED IN

There are tons of benefits to using ropes in your training, but here are 5 good ones:

1. Improved Cardiovascular Capacity

The high intensity, high-speed movements will crank up your cardiovascular capacity very quickly.

2. Maximum Caloric Burn

When small muscles have to do big work it drives up caloric expenditure fast. With the forearms, biceps, triceps and shoulders moving at a high speed under tension you will burn a lot of calories in a short period of time.

3. Improved BMI

Ropes will help you burn fat and build muscle at the same time. Add in the EPOC (Excessive Post Oxygen Consumption), a.k.a. "after burn", you get from this versatile tool, and you will be burning more calories even after your workout is over.

4. Improved Timing & Coordination

Rope training is guaranteed to improve timing and coordination, which can help you in your sport and in daily life. Add jumps, shuffles, kneeling, and moving backwards and forwards into your rope training, and it becomes a full-body functional workout.

5. Improved Mental Toughness

When it comes to making gains and getting results, never underestimate the importance of mental toughness. An intense workout using battle ropes will test your mental willpower without running your body into the ground.

How long should you work the ropes?

Working for longer than 30 seconds usually leads to form breakdown, so shorter work periods are going to be more effective. For example, 20-30 seconds of maximum effort and intensity is better than 60 seconds or more with improper form. Keep the intensity high, and the work and rest times low. ■



SUBSCRIBE & STAY STRONG



Visit strongfitnessmag.com/subscribe to subscribe and receive 6 issues of **STRONG Fitness Magazine** delivered to your door.



PLUS:
Receive 6 issues
of the Digital
Training Guide **FREE!**

IRON CORE

Forget what you've heard about zero carbs and endless cardio being the only way to a six-pack. With patience, a healthy diet, and these five exercises, a sculpted set of abs is anything but impossible.

WRITTEN BY KIRSTYN BROWN, EDITOR-IN-CHIEF
PHOTOGRAPHY BY PAUL BUCETA

WASHBOARD. SIX-PACK. BRICKS.

Call 'em what you want, chiseled abs are probably the most coveted reward for training hard and eating right that a person could ask for. But unless you're blessed with some amazing genes, this is often one of the most stubborn muscle groups to train for size and definition, especially for women. So is there a secret to finally scoring a six-pack? Sort of. But it's likely not what you think it is. "While it is definitely easier for men to build visible, defined abs than it is for women, it is not solely achievable through hardcore dieting and endless cardio," says exercise physiologist Tom Holland, MS, CSCS, CISSN. "What really matters is consistency and quality, rather than extremes and quantity; a combination of clean eating, focused strength training and core work."

More specifically, core work that involves a little heavy metal—adding some weight to those crunches whenever you can. "Bodyweight exercises are okay, but strength building exercises are what women need in order to build beautiful abdominals," says James Villegas, CSCS, internationally recognized fitness expert and motivational coach. And of course, which exercises you do is just as important to abdominal training as it is your back or biceps. Moves that hit every part of your abs—the rectus abdominus, transverse abdominus, and obliques—are critical to six-pack success.

But which exercises get the job done? Our two esteemed experts gave the nod to the following five moves for being effective tools in your quest for a sculpted, iron core.

HOW TO:
INCORPORATE THE FOLLOWING EXERCISES INTO YOUR ABS TRAINING, PERFORMING 3-5 SETS OF 8-15 REPS ►

MODEL RACHEL DAVIS





WEIGHTED STABILITY BALL CRUNCH

Set Up: Position yourself on a stability ball so it is supporting your lower back. Hold a weight plate or dumbbell in front of your chest or behind your head, and lean back so your shoulders extend off the ball.

Action: Contract your core to raise your torso up until your shoulders and upper back are off the ball. Hold, then slowly lower back down with control.

SLOW SIT-UP

Set Up: Lie on a mat with your feet flat on the floor and knees bent. Hold a weight plate in front of your chest or place your hands behind your head.

Action: Contract your core and slowly raise your torso off the floor. Count for five full seconds to come up, and five seconds to lower down.

WINDSHIELD WIPER

Set Up: Lie on a mat with your arms out to the sides and raise your legs so they are perpendicular to the floor. Straighten your legs or keep them bent.

Action: Slowly lower your legs to one side until they are just an inch or two above the floor, then raise them back to center, then down to the other side, and back to center.

**ADVANCED VARIATION:
TO MAKE THIS MOVE MORE
DIFFICULT, HANG FROM A
CHIN-UP BAR, RAISE YOUR
LEGS, AND ROTATE FROM
SIDE TO SIDE.**

MAKE THESE MOVES MORE ADVANCED BY ADDING WEIGHT WHEN POSSIBLE

BICYCLE CRUNCH

Set Up: Lie on your back with your hands behind your head or holding a weight plate in front of your torso. Raise your legs so they are perpendicular to the floor and bend your knees so they are at a 90-degree angle.

Action: Contract your core to lift your shoulders off the floor and twist from the waist to bring your right elbow towards your left knee. As you twist, perform a "pedaling" motion by extending your right leg straight out, then twist to the other side, bringing your left elbow towards your right knee while extending your left leg. Continue twisting side to side for all reps.

HANGING LEG RAISE

Set Up: Grab a chin-up bar with palms facing forward, wider than shoulder-width apart. Hang with arms and legs extended, making sure all of your muscles are engaged, especially your upper back, arms and core.

Action: Raise your legs until your knees are higher than hip level. You can do this with straight legs to make it harder, or bent legs to make it easier. Slowly lower back down and repeat.

**HOLD A DUMBBELL
BETWEEN YOUR FEET TO
MAKE THIS MOVE HARDER. **S****

Get EVEN

When it comes to fixing strength imbalances, you have to take sides. How to toughen up your weak points with unilateral training.

WRITTEN BY **SANDY BRAZ**, DEPUTY EDITOR
ROUTINE BY **NICHELLE LAUS**, CERTIFIED PERSONAL TRAINER & COACH
PHOTOGRAPHY BY **DAVE LAUS**



MODEL ANNA BABU | MAKEUP & HAIR TWO CHICKS & SOME LIPSTICK
SHOT ON LOCATION AT LA FITNESS, MISSISSAUGA

A barbell bench press is a good test of strength, but there's just one problem:

it allows your weaker side to remain hidden while your stronger side dominates. Didn't know you had a weak side? Just try doing a bench or shoulder press with one arm at a time and those weaknesses will appear before your very eyes. It's nothing to be embarrassed about; we all have one dominant side and one that comes up a bit short in terms of strength. But the key to correcting these imbalances is to incorporate exercises that train each side unilaterally.

Unilateral training, which simply means working one side of your body at a time, takes extra stability and a focus on form to properly execute. This type of training isn't just beneficial to a better physique; it's mandatory for improving strength, creating symmetry and even preventing future injuries. Here's how it works: when doing a one-arm chest press for example, your other arm isn't there to provide balance throughout the movement—or pick up the slack

if your weaker side fails. This forces your weaker muscles to do all the work and become stronger. Plus, your core comes into play for balance, which helps develop strength overall.

You can apply unilateral training to every muscle group, but this workout focuses on the upper body. A word of caution: correcting imbalances can take time, so be patient. And forget your ego while you're at it; you're going to have to go easy on the weight for this routine.

THE WORKOUT

How to:

For all exercises, complete all reps on one side, then repeat with the other arm. Incorporate this upper body workout into your current routine 1-2 times per week for six weeks.

Reps	Sets	Exercise
10, 8, 8, 6	4	One-Arm Bent-Over Row
10, 10, 10	3	Single-Legged Back Extension
10, 8, 8, 6	4	One-Arm Incline Chest Press
10, 10, 10	3	One-Arm Chest Fly
10, 8, 8, 6	4	One-Arm Shoulder Press
10, 10, 10	3	One-Arm Cable Lateral Raise
10, 8, 8, 6	4	One-Arm Cable Triceps Pushdown



One-Arm Bent-Over Row

SET UP: Holding a dumbbell in your left hand, place your right knee and right hand on a bench and plant your left foot flat on the floor. Lower the dumbbell to extend your arm.

ACTION: Bend your elbow and pull the dumbbell towards your ribcage, focusing on using your back muscles to raise the weight. Extend your arm to lower the weight back to the starting position. ▶

Single-Legged Back Hyperextension

SETUP: Position yourself facedown on a back extension apparatus with the pad across your upper thighs. Secure one foot under the ankle pads and leave the opposite foot unsecured. Cross your arms over your chest or hold a weight plate if desired.

ACTION: Contract the muscles in your lower back and raise your torso upward to form a straight line from your shoulders to your feet. Hold at the top of the movement, then slowly lower back down.



KEEP YOUR
NECK IN A
NEUTRAL
POSITION

One-Arm Incline Chest Press

SETUP: Adjust a bench to a 45-degree angle and sit down, holding a dumbbell in one hand. Position the weight just below your shoulder in front of your chest, palm facing in.

ACTION: Press the dumbbell straight up until your arm is fully extended. Slowly lower the weight back down to the starting position.



One-Arm Chest Fly

SETUP: Lie on a flat bench with your feet firmly on the ground. Hold a dumbbell in one hand with your palm facing in and extend it straight up over your chest (A).

ACTION: Keeping a slight bend in your elbow, lower your arm down to the side until it's parallel to the floor (B). Contract your pectoral muscles to raise it back to the start position.





A

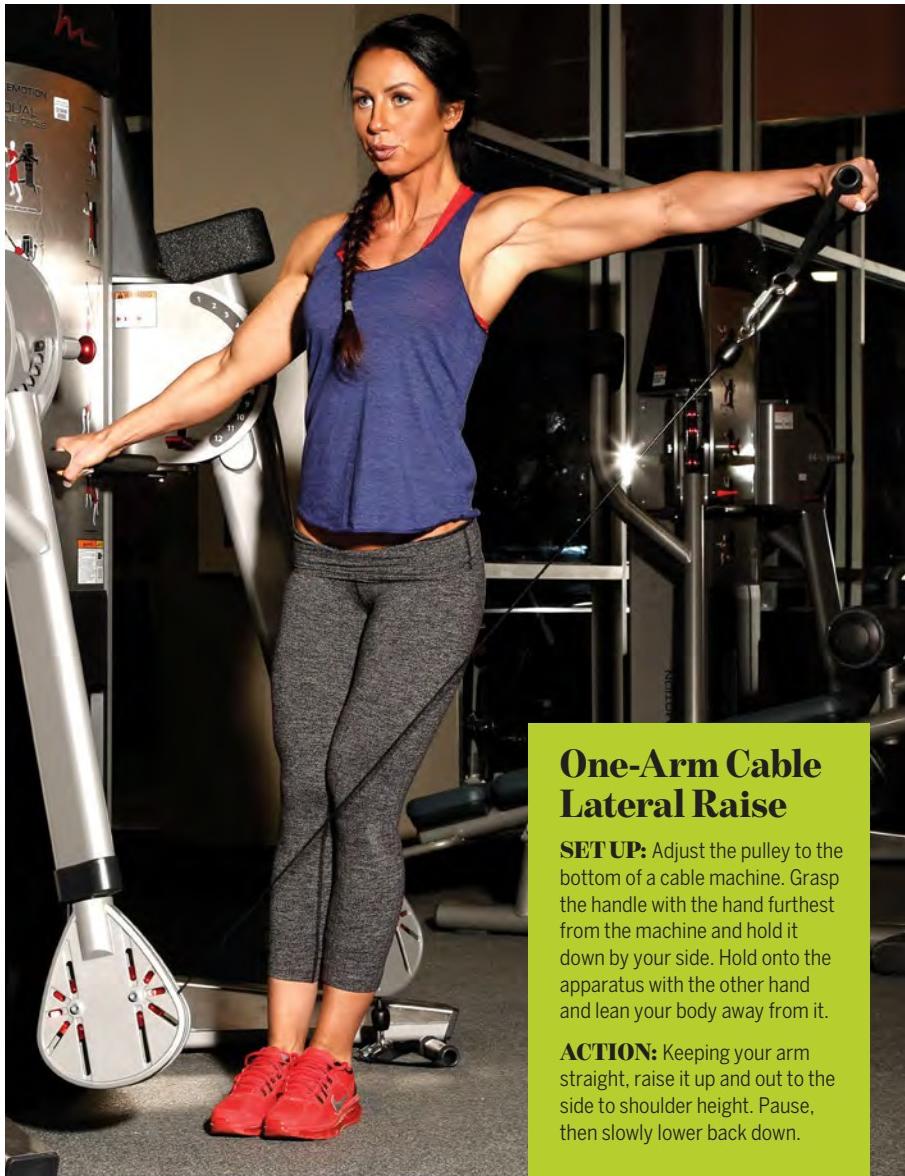


B

One-Arm Shoulder Press

SET UP: Sit tall on an incline bench with your feet firmly on the ground. Grasp a dumbbell in one hand and hold it out to the side with your arm bent at 90 degrees (A).

ACTION: Press the weight straight up overhead until your arm is extended (B), then lower it back down to the starting position.



One-Arm Cable Lateral Raise

SET UP: Adjust the pulley to the bottom of a cable machine. Grasp the handle with the hand furthest from the machine and hold it down by your side. Hold onto the apparatus with the other hand and lean your body away from it.

ACTION: Keeping your arm straight, raise it up and out to the side to shoulder height. Pause, then slowly lower back down.

One-Arm Cable Triceps Pushdown

SET UP: Attach a handle to a pulley positioned at the top of a cable apparatus. Stand facing the machine and grasp the handle in front of your chest with an overhand grip (A).

ACTION: Press the handle down in front of your body until your arm is fully extended, contracting your triceps at the bottom of the movement (B). Slowly return to the start position. **S**



A



B

GMOs Exposed

You've heard of them, but do you know really now what they are? Get the facts on GMOs and why they've ended up in almost everything we eat.

WRITTEN SANDY BRAZ, DEPUTY EDITOR

YOU'VE SPOTTED THE LABEL more and more lately: "Non-GMO". You might be aware that the acronym stands for "Genetically Modified Organisms" and that the stamp verifies that what you're buying is somehow good for you or the environment. But what else should you know about where your food is coming from, and more, where your dollar will end up?

Today, nearly 80 percent of our food supply contains GMOs, putting the volume of modified foods, clothing and agriculture at an all-time high. And with advocates on both sides of the debate for genetically modified food, it can be hard to know what's what. So we've called upon experts well versed on this hot-button topic, to help cut through the jargon and uncover the facts, so your next grocery store purchase can be an educated one.

THE "WHAT" AND "WHY"

Genetically Modified Organisms are just that: gene combinations that don't occur in nature and have been genetically engineered with DNA from bacteria, viruses or other plants and animals. The most prominent genetically modified crops and foods today include corn, canola, soy, sugarbeets, tomatoes, squash, animal feed and even cotton; however, there are few remaining industries GMOs haven't influenced.

There are several arguments in favor of GMOs, such as improved taste, quality, appearance, and even enhanced nutrient-density. But the most significant (and undeniable) argument is that GMOs easily meet a rising populations' food demands. "The population is growing exponentially," says Michael Hart, BSc, MD, CCFP, nutritionist and head physician at Regenesys Anti-Aging & MediSPA in London, Ontario.

"We're not going to be able to feed everyone with traditional techniques and practices."

NOW FOR THE BAD NEWS...

A growing body of evidence continues to mount against the safety of consuming GMOs, mainly surrounding the hard-to-detect side effects, including allergies, toxins, new diseases and increasing digestive issues. FDA scientists have insisted on long-term studies featuring these mutated organisms, receiving a lot of push back from government and industry. For the health-conscious population, these are considerable factors to chew on.

"Once you incorporate a GMO into your body, your body will no longer be producing the correct bacteria," says Hart, "These organisms aren't naturally occurring and their affects can be long-lasting and detrimental to personal health, growth and development."

BUT WHAT ABOUT "ORGANIC"?

Products that are labeled as "100% Organic" are free from GMOs, however, there is room for error. Cross-contamination from animal feed and ingredient suppliers can compromise the quality of organic products.

What to look for

Although looking out for the "Non-GMO" verification label is the best way to identify a GMO-free food, experts say you have to take a closer look—even following the trail of where the product was sourced and manufactured—to see the bigger picture. "I would assume everything is genetically modified unless you're told otherwise," says Hart.

"Even when you're aware of the major crops, they can still appear as derivatives and additives in food," says well-known non-GMO advocate and expert Zach Schieck. On a positive note, he adds that demand for transparency is growing and more and more companies and farmers are opting for integrity first, adhering to proper labeling and GMO-free agriculture and industry. Your best bet is your judgment. Read labels and be on the look out for ingredients such as high-fructose corn syrup and even ascorbic acid (also known as vitamin C), which is derived from corn, aspartame and even the sugar you add to your coffee. "Essentially, the best way to start is to ask questions," says Shiek. "Whether it be your local grocer, farmer and even your general practitioner. Educating yourself is key when it comes to food integrity."



WHAT YOU CAN DO

It's becoming increasingly difficult to find corn and soy products that are not modified. "Just attempting to remove these two foods from your diet will help you realize how deeply woven into our food chain they are," says Schieck. So what are the best ways to be GMO-free? To start, consuming whole foods when possible is critical, including wild rice, quinoa, coconut oil and coconut sugar. These are the best alternatives to corn and soy on the market today. "But don't make too many changes at once," advises Hart, "It may be too challenging and you likely won't stick to it. Plan ahead. Try and find a source where you can find reliable, GMO-free meat and vegetables, and continue to gradually change the way you buy ingredients for your everyday meals."

GLOBAL AWARENESS

There are some steadfast regulations on the use of GMOs around the world, in countries like Australia, Japan and all of the European Union. In the United States and Canada, however, GMOs are still legal, placing more pressure on the public to educate themselves on the topic.

GET MORE INFO

Want to learn more on Genetically Modified Organisms and our food supply? Check out these trusted sources:

The Non-GMO Project: a collaborative initiative aiding consumers and companies with actions such as labeling, educating, and promoting a Non-GMO lifestyle.

The Institute for Responsible Technology: a world leader in educating policy makers and the public about genetically modified foods and crops.

Local organic and non-GMO farmers: Get to know the people growing your food and producing the products you buy as often as you can. It's the best investment in first-hand education, which also supports your health, community and local economy. 

Lift & Lengthen

Tight muscles come with the territory for weightlifters, but these yoga poses can help break the tension.

WRITTEN BY SANDY BRAZ, DEPUTY EDITOR
PHOTOGRAPHY BY PAUL BUCETA

IT WASN'T THAT LONG AGO that weightlifting and yoga seemed to have nothing in common; while yogis aim to lengthen and stretch their muscles, weightlifters are all about contracting and building them. But more recently, weightlifters have been turning to yoga as a compliment to their training, not just to help chill out their minds, but as a way to improve overall body conditioning and health. But why choose yoga? Traditional stretches typically seen around the gym can help reduce post-workout soreness, but it's the fluidity of movement in yoga and the range of postures (asanas) that target tighter areas more effectively, loosening joints and increasing flexibility,

especially after a heavy lifting session.

Some of the most used areas of a weightlifter's body are hips (think movements like squats and jumps) and back (the full area from just above the hips to just below the underarm). This routine targets those tight, overused areas, and is simple enough for a newcomer, while still being challenging enough for the seasoned yogi. It's the yoga routine that will change your lifting-life for the better; finally, the two worlds have collided.



**WHAT
YOU'LL
NEED:**
A yoga mat
and a block

HOW TO:
Try not to rush through the routine. Since it's tailored to help release tension and lengthen muscles, it's important to take your time and breathe deeply. Go through the entire sequence at least once, holding each pose for 10-20 seconds, depending on your flexibility and needs.

BARE
FEET ARE
ALWAYS
BEST.

Lizard Low-Lunge

SET UP: With a block on the floor in front of you, step forward with your left foot and lower into a low lunge. Drop your right knee to the ground and keep your toes curled under.

ACTION: Walk the left foot out to the side of the block a few inches, begin to lower your forearms down on to the block so that your body is as close to the ground as possible. Slowly raise your right knee off the ground to deepen the stretch. Hold, then return to the starting position and repeat on the other side.

TIP: TO ADVANCE THIS MOVE, GET RID OF THE BLOCK AND BRING YOUR FOREARMS TO THE GROUND.



Bound Ankle Pose

SET UP: From a seated position, bend your knees to bring the soles of your feet together; pull your heels close to your body, and allow your knees to open naturally, creating a diamond shape with your legs.

ACTION: Keep your spine straight and pull your shoulders back as you lean forward into the stretch, leading with your chest.

TIP: RELAX YOUR INNER THIGHS AS MUCH AS POSSIBLE BEFORE LEANING INTO THE STRETCH.



Breathe with intention throughout this routine; in-and-out through your nose.

PIGEON POSE

SET UP: Get into Downward Dog, with your palms and feet pressing into the mat and your hips raised, keeping a neutral spine. Lift your left leg into the air until it is in line with your body.

ACTION: Bring your raised leg down, bending your knee and placing it on the mat so your shin is between your hands; line up your hips parallel to each other, pressing your left hip toward the floor. Place your arms by your side and gently lean forward to deepen the stretch. Reverse the motion back into Downward Dog and repeat on the other side.



CONTINUOUSLY
DRAW YOUR
HIPS DOWN,
MAKING SURE
THEY ARE
PARALLEL.



Fire Log Pose

SET UP: Sit on the floor with a straight spine. Place your right leg out in front of you and bend at the knee until your shin is in a straight line and parallel with your body.

ACTION: Stack your left leg on top of the right and line up your left ankle to your right knee and the left knee to the right ankle. Hold, then reverse the motion and repeat on the other side.

TIP: THIS IS A DEEP STRETCH FOR THE HIPS. EASE INTO IT SLOWLY, BREATHING DEEPLY.





Goddess Pose

SET UP: From standing, step your feet out wide, turning the toes outward; bend your knees so they line up with your ankles, and tuck your tailbone in to activate your core. Place your hands together at your chest.

ACTION: Slowly lower yourself down an inch or two and hold; you'll feel a stretch through your hips.

TIP: ALTHOUGH YOUR TAILBONE DOESN'T HAVE TO TOUCH THE GROUND, DRAW IT DOWN AS FAR AS YOU CAN.

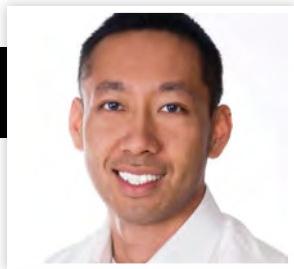
This pose stretches out the hips, lower back, spine, chest, shoulders, and neck.

HALF LORD OF THE FISHES POSE

SET UP: Sit on the floor and extend both legs out in front of you. Keep your right leg straight; now bend your left knee and cross your left foot over your right leg, pulling left knee into your body. Line up your left heel about two inches away from your right thigh.

ACTION: Sit up very tall and avoid sinking in the lower back. Wrap your right arm around the left leg to create a twist. Move your right shoulder forward as you move the left shoulder back. Reverse the motion and repeat on the other side.



WRITTEN BY
DR JAMES HO, DC, BHSC

Play it Safe

Check your ego at the door. Avoiding these four common training mistakes will keep you in the gym, and out of the doctor's office.

YOU MAY THINK that weight room injuries only happen to those who are inexperienced, but the truth is, gym injuries can happen to anyone, from seasoned athletes to first-time lifters. Injuries resulting from using improper form to being a little too ambitious with the weight are typical, and can almost always be prevented. So the next time you hit the gym, keep it safe by remembering these four common training errors. You'll avoid injury and get that much closer to your goals.

1. Improper technique.

Poor exercise technique is the most common cause of both chronic injuries (the kind that develop over time) and acute injuries (the kind that are immediate and specific) that occur at the gym. Actions that force your body's joints to move incorrectly place abnormal stresses on the joints and their structures, potentially causing tears and strains to tendons and muscles.

THE SOLUTION: Practice the exercise technique before loading up the weight. Once you're comfortable with the motion, aim to perform each repetition correctly. You'll avoid painful injuries, and make the exercise much more effective.

REMEMBER:
ALWAYS PRACTICE
SAFE SETS.

2. Too much weight.

The second most common training mistake that leads to preventable injury is lifting too much weight. Without question, the process of increasing strength and muscle depends on increasing the amount you lift and challenging your limits; however, if you cannot steadily control the amount of weight you're lifting in both the concentric and eccentric movements of the exercise, you are lifting too much. Control means not having to use momentum to "jerk" the weight up, and being able to lower the weight slowly and methodically.

THE SOLUTION: Reduce the amount of weight so that the number of repetitions in any given set can be performed correctly, adhering to form. When increasing the weight to a point where you're hitting failure, use a spotter to help you safely push your limits.

3. Not warming up or stretching.

Warming up and stretching accomplish very different, but equally important goals. Unfortunately most people do little of either, if any at all. The purpose of warming up is to increase blood flow into the body's muscles, ligaments, and tendons; this helps to increase the joint's mobility and flexibility. The purpose of stretching after the workout is to relax the muscles and improve their elasticity, as well as joint mobility.

use these rest periods to allow for your muscles to recover from the previous set. This also allows you to fully and effectively ready your body for the next set.

THE SOLUTION: You should be resting 1-2 minutes between sets to let your muscles recover. By not resting enough, you are at risk of fatiguing your muscles too early to continue your workout with strict form (see "Improper Technique").

4. Not warming up or stretching.

Warming up and stretching accomplish very different, but equally important goals. Unfortunately most people do little of either, if any at all. The purpose of warming up is to increase blood flow into the body's muscles, ligaments, and tendons; this helps to increase the joint's mobility and flexibility. The purpose of stretching after the workout is to relax the muscles and improve their elasticity, as well as joint mobility.

THE SOLUTION: Prior to your workout, perform a set of exercises with light weights and high repetitions, or 5 to 10 minutes on a cardio machine at a low resistance. You can also do a few minutes of dynamic stretching. After your workout, do at least 5 minutes of static stretches, paying attention to the muscles and joints that were used.

Safe Training,
Dr. James Ho



Have a question for our chiro?
Email us at info@strongfitnessmag.com

UNCOVER YOUR STRONG



**THE CHALLENGE YOU'VE
BEEN LOOKING FOR:**

**Killer workouts
Nutrition seminars
Revived Motivation**

THE ENTIRE EXPERIENCE PHOTOGRAPHED BY PAUL BUCETA

UPCOMING DATES 2015

Las Vegas, NV March 27-29

San Diego, CA April 17-19

Montreal, QC May 1-3

STRONGCAMP

PRESENTED BY STRONG FITNESS MAGAZINE

Visit strong-camp.com for the next camp near you!

STRONGCAMP

SPOTLIGHT

PHOTOGRAPHY BY PAUL BUCETA



Sweating it out on the stairs in San Diego



STRONGCAMP attendee Summer Mast does tire jumps in the blazing Phoenix sunshine



Yoga in the park in San Diego





WHAT IS STRONGCAMP?

It's more than a bootcamp. It is an opportunity to push your limits, recharge your motivation, and boost your confidence while making connections with others who are as passionate and unique as you are. You will train with respected fitness experts and industry icons, and learn invaluable information to take your fitness to the next level and improve your health. **You will arrive strong, but you will leave stronger.**



For more details or to register visit strong-camp.com.



SHOW
YOUR
STRONG
SIDE

Apparel Available at **STRONGFITNESSMAG.COM**